

TITLE

NANOMETER-CONTROLLED POLYMERIC THIN FILMS THAT RESIST
ADSORPTION OF BIOLOGICAL MOLECULES AND CELLS

ABSTRACT

This invention relates to a process for growing thin films of polyethylene glycol alkyl acrylate (PEGAA) on a moiety accepting surface of a substrate using Surface Atom Transfer Radical Polymerization (SATRP). This invention also relates to a process for producing thin PEGAA films having specific surface functionalities, a thickness ranging from about 0.5 nm to about 5000 nm, and a PEGAA chain density ranging from 0.1 to 100 % surface coverage. This invention further relates to articles coated with such films, wherein the coated articles resist adhesion of biological molecules and cells, as well as, to uses for the coated articles.